

KULAGINA, M.Ye.; KOVSMAN, I.D.

Repeated myocardial infarct. Zdravookhranenie 3 no. 5:20-24 S-0  
'60. (MIRA 13:10)

1. Iz bol'nitsy Lechsamupravleniya (nachal'nik - kand. med.nauk  
M.G. Zagarskikh) Ministerstva zdravookhraneniya Moldavskoy SSR.  
(HEART—INFRACTION)

KOVSMAN, Ye.P.; TYURIN, Yu.M.; KARAVAYEVA, Ye.A.; Prinimali uchastiye: BELOUS,  
A.B.; TSYBULEVSKAYA, A.M.

Anodic dissolution of some noble metals in organic media. Zhur.prikl.khim.  
37 no.1:217-218 Ja '64. (MIRA 17:2)

1. Lisichanskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti.

TSINMAN, A.I.; KOVSMAN, Ye.P.; KUZUB, V.S.

Anodic behavior of titanium and stability of a platinum-titanium anode in aqueous methanol solutions containing chlorine ions.  
Ukr. khim. zhur. 31 no.9:923-926 '65. (MIRA 18:11)

1. Severodonetakiy filial Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza.

AUTHORS: Kuzub, V.S., Kuzub, I.G., Kovshin, Ye.P. SOV/63-3-6-39/43

TITLE: The Problem of the Influence of Anions on Electrode Processes  
(K voprosu o vliyani anionov na elektrodnyye protsessy)

PERIODICAL: Khimicheskaya nauka i progress, 1958, Vol III, Nr 6,  
pp 836-837 (USSR)

ABSTRACT: The adsorption of iodine ions on cadmium is a function of the potential. Shifting the potential to positive values leads to a more intensive covering of the surface by iodine ions which is expressed in a deepening of the minimum in the curves  $\lg i$  and  $\frac{1}{i}$ . The abnormal dependence of  $\lg i$  on  $\frac{1}{i}$  in the presence of halide ions is probably due to a change of the electrode surface caused by the formation of surface connections between the metal and the halide ions. There are 6 graphs and 8 Soviet references.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet (Chernovitsy State University)

SUBMITTED: April 24, 1958

Card 1/1

TYURIN, Ye.M.; VESELOVA, M.V.; KURATOVA, V.A.; KOVSEMAN, Ye.P.;  
BELOUS, A.P.

Electrolysis of monomethyl ester of adipic acid in methanol  
solution. Zhur.prikl.khim. 35 no.5:1082-1092 My 1962. (MIRA 15:5)

1. Leningradskiy filial Gosudarstvennogo instituta sootnoy  
promyshlennosti.

(Adipic acid)

(Electrolysis)

KOVTANYUK, M.S.; GORBUNOVA, S.P.

Using herbicides mixed with mineral fertilizers. Zemledelie 6  
no.5:66 My '58. (MIRA 11:6)  
(Corn (Maize)) (2,4-D) (Fertilizers and manures)

NIKOLAYEV, V.I.; ZEL'DIN, V.S.; KOVTANYUK, V.M.

New developments in research. Stal' 24 no.2:144 F '64. (MIRA 17:9)

KOVTANYUK, Ye.F.

DONSKOY, B.V., inzhener; KOVTANYUK, Ye.F., inzhener.

Controlling corrosion of brass tubes. Energetik 4 no.10:19 0 '56.  
(MLBA 9:11)

(Corrosion and anticorrosives) (Zinc--Analysis)



*KOVTHANYUK, Ye. F.*

10

VEDYUKOV, Ye.A., inzhener; ~~KOVTHANYUK, Ye.F.~~ inzhener; DONSKOY, B.V.,  
inzhener.

Improving the operation of chemical water purification in heat and  
power plants (TEPS). Energetik 5 no.6:15-16 Je '57. (MLRA 10:7)  
(Feed-water purification)

KOVTARADZE K.

DZHIKIDZE, B.K.; GVAZAVA, I.S.; KOVTARADZE, K.N.

Comparative study of various methods for treating experimental  
Shigella dysentery in monkeys [with summary in English]. Antibiotiki  
2 no.6:20-27 N-D '57. (MIRA 11:2)

1. MedikoObiologicheskaya stantsiya AMN SSSR (Sukhumi)  
(DYSENTERY, BACILLARY, experimental,  
antibiotics, comparison in monkeys (Rus))  
(ANTIBIOTICS, effects,  
on exper. bacillary dysentery in monkeys (Rus))

KOVLENKO, I. I.

Unclassified

**Books:**

**Author:** Kovlenko, I. I.

**Title:** Exercise Book on Technical Mechanics

**Publishing Data:** 1951, Moskva, Rechisdat

**Available:** M.L.R.A., November, 1952

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ma  
7/19/55

KOVVIN, P.G.

Selection of lubricants for drawing thin-sheet parts. Kuz.-shtam.  
proizv. 2 no.9:10-12 S '60. (MIRA 13:9)  
(Metalworking lubricants)

24.7700

37807  
S/120/62/000/002/038/047  
E140/E163

AUTHORS:  
TITLE:

Kokorev, D.T., and Kovtonyuk, N.F.  
Analysis of semiconductor homogeneity by the method  
of volume photoelectric e.m.f.

PERIODICAL:

Pribery i tekhnika eksperimenta, no.2, 1962, 160-164

TEXT:

In addition to the e.m.f. due to inhomogeneities in the bulk conductance of semiconductors, there is an e.m.f. due to space charge. This renders previous methods based on light probes valid only for strongly inhomogeneous materials. A calculation of the space charge e.m.f. is carried out on the assumption of a semiconductor plate with linear dimensions much greater than the diffusion length of current carriers, and collinear electrodes and light probe. The light spot dimensions are assumed negligibly small, and the rate of surface recombination small and constant over the surface. The light spot is at a sufficient distance from the electrodes to eliminate the possibility of nonequilibrium carriers reaching the latter. The trap concentration is nonzero. Then, the

Card 1/2

Analysis of semiconductor ...

S/120/62/000/002/038/047  
E140/E163

shape of the  $V(r)$  curve is symmetrical, reaching values of several microvolts near the electrodes of an 8 mm bar, and passing through zero at the centre of the bar, for a homogeneous bar. Slight deviations from this curve (Fig.3) correspond to mild inhomogeneities. Continuous and automatic measurements can be carried out; mention is made of recording the  $V(r)$  curve on uv sensitive paper. There are 4 figures.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinostroyeniya  
(Moscow Chemical Engineering Institute)

SUBMITTED: June 3, 1961

Card 2/2


S/159/62/000/002/028/023  
E073/E335

7  
AUTHOR: Kovtonyuk, N.F.

TITLE: On transient phenomena of volume photo e.m.f. in  
semiconductors

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,  
no. 2, 1962, 174

TEXT: In investigating volume photo e.m.f., i.e. e.m.f.  
generated in the body of a semiconductor due to nonuniformities  
in resistivity, the following transient processes are observed  
in electron-type germanium: 1) When light is switched on,  
at first e.m.f. of one polarity will be generated, then when a  
certain value is reached, the e.m.f. begins to drop, passes  
through zero and a steady-state e.m.f. is established of a  
polarity opposite to the initial one. 2) When the light is  
switched off, there will first be an increase in the e.m.f. and  
only after reaching a certain value will the e.m.f. start to  
drop and tend to reach zero. Such phenomena were not observed  
for CdS, Ge, etc. and therefore it is assumed that these  
phenomena are due to physical processes which occur inside the  
Card 1/2



S/139/62/000/002/023/023

E075/E535

On transient phenomena ....

investigated specimens. Surface changes (etching, placing in a vacuum) lead to changes in the absolute e.m.f. but do not influence the transient process, which proves that this is a volume phenomena. It can be explained by taking into consideration that in the real semiconductor there will always be a certain concentration of adhesion levels, which have a strong influence on the kinetics of the nonequilibrium carriers and on the generated e.m.f. It was observed that by capturing nonequilibrium current carriers, adhesion levels should have a considerable influence on the photo e.m.f. in semiconductors and even change its sign; this is in agreement with published theoretical results. Such phenomena may prove suitable for investigating and establishing the concentration of the adhesion levels in semiconductors. There is 1 figure.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinstroyeniya  
(Moscow Institute of Chemical Engineering)

SUBMITTED: July 29, 1961

Card 2/2

KOVTONYUK, N.F.

Transient processes of volume photoelectromotive force in semi-conductors. Izv.vys.ucheb.zav.;fiz. 2:174 '62. (MIRA 15:7)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.  
(Semiconductors) (Photoelectricity)



KOVTONYUK, N.F.; KOKOREV, D.T.

On the theory of the volume photo-emf in semiconductors.  
Izv. vys. ucheb. zav.; fiz. no.5:121-123 '62. (MIRA 15:12)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.  
(Photoelectricity) (Semiconductors)

KOKOREV, D.T.; KOVTONYUK, N.F.

Homogeneity analysis of semiconducting materials by the space  
charge photo-emf method. Prib. i tekhn. eksp. 7 no.2:160-164  
Mr-Apr '62. (MIRA 15:5)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.  
(Electromotive force) (Semiconductors--Analysis)

L 18749-63 EWT(1)/EWG(k)/EWP(q)/EWT(m)/BDS---AFFTC/ASD/ESD-3/LJP(C) Pz-4  
 ACCESSION NR: AT3002247 JD/AT S/2941/63/001/000/0347/0352

AUTHOR: Kovtonyuk, N. F.

TITLE: Frequency dependence of luminescence in semiconductors 2

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminestsentsiya.  
 Moscow, Izd-vo AN SSSR, 1963, 347-352

TOPIC TAGS: vibrational component, electroluminescence, dielectric constant,  
 recombination, charge carrier

ABSTRACT: The dependence of constant and variable concentration components of  
 a nonequilibrium charge carrier on frequency modulated excitation was studied.  
 The concentration of these injected charge carriers  $n$  is given by expression (1):

$$n(t) = N_0 + \frac{1 + i\omega\tau}{1 + \omega^2\tau^2} N_{0e} e^{i\omega t}$$

where  $t$  = time;  $N_0$  = constant vibrational component of charge carrier (independent

Card 1/2

L 18749-63

ACCESSION NR: AT3002247

of frequency);  $\omega$  = frequency.

Analytic curves are obtained for the constant component, variable component, and total electroluminescence brightness versus frequency. Experiments were also made to determine frequency dependence of blue and green light components of the electroluminophor  $ZnS-Cu$ . In addition, the frequency dependence of the real and imaginary parts of the luminophor dielectric-constant frequency were obtained experimentally under ultraviolet excitation. It is observed that the frequency dependence of electroluminescence brightness can be used to define kinetic recombination processes in the luminophor through duration lifetime of the current carrier. "The author acknowledges the help of D. T. Kokorev." Orig. art. has: 9 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 09Apr62

DATE ACQ: 19May63

ENCL: 00

SUB CODE: PH

NO REF SOV: 012

OTHER: 009

Card 2/2

S/051/63/014/004/022/026  
E039/E420

AUTHOR: Kovtonyuk, N.F.

TITLE: The mechanisms of electroluminescence and electric breakdown in semiconductors

PERIODICAL: Optika i spektroskopiya, v.14, no.4, 1963, 576-577

TEXT: An attempt is made to explain how electroluminescence arises in fields less than indicated by the ratio

$$eEl = \Delta\epsilon \quad (1)$$

where  $e$  - the charge on the electron,  $E$  - the strength of the electric field,  $l$  - the free-path length of electrons and  $\Delta\epsilon$  - the width of the forbidden band, and also to explain some of the breakdown characteristics of semiconductors and dielectrics. Taking collisional ionization as the basic mechanism, the energy obtained by electrons in the conduction band from an alternating electric field is obtained and from this the kinetic energy gained by electrons between two collisions is derived

$$W = \frac{e^2 E^2 \tau_m^2}{2m^*(1 + \omega^2 \tau_m^2)} \quad (4)$$

Card 1/2

S/051/63/014/004/022/026  
E039/E420

The mechanisms of ...

where  $\tau_m$  is the time between two collisions,  $m^*$  - the effective mass of the electron and  $\omega$  - the frequency of the alternating field. This shows that the electron energy is not dependent on the sign of  $E$  and hence the electron can accumulate energy from the electric field over many free paths and ionization is possible in fields less than required by Eq.(1). One of the important characteristics of breakdown is the delay time  $t_3$  which is the sum of the times of free flight required to obtain the necessary energy. The electron energy necessary for ionizing semiconductors is given by  $\Delta\epsilon = NW$  where  $N$  is the number of free flights and  $W$  is given by Eq.(4). The delay time  $t_3 = N\tau_m$  and hence one obtains

$$t_3 = \frac{2m^* \Delta\epsilon}{e^2 E^2 \tau_m} \quad (7)$$

This indicates that the delay time for breakdown is inversely proportional to the electric field strength which is in full agreement with experimental results and confirms the validity of the calculations.

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SUBMITTED: September 18, 1962

L117781-63

EW(1)/BDS AFMTC/ASD/ESD-3/TJP(C)/SSD

ACCESSION NR: AP3005851

8/0051/63/015/002/0262/0265

AUTHOR: Kovtonyuk, N.F.

TITLE: Contribution to the theory of electroluminescence

SOURCE: Optika i spektroskopiya, v.15, no.2, 1963, 262-265

TOPIC TAGS: electroluminescence, impact ionization, multiple impact

ABSTRACT: The author examines some aspects of the mechanism of electroluminescence with a view to explaining some of the effects observed in investigations of this form of luminescence. It is accepted that the basic mechanism of electroluminescence is impact ionization; however, the classical theory of Destriau and Curie (D. Curie, J. Phys. rad., 13, 317, 1952), although valid in many respects, is incapable of explaining certain experimental facts. The author's argument is that the energy picked up by a conduction electron from the external field between two encounters is too small for ionization and that it must therefore be assumed that the electron acquires the necessary energy as a result of continued acquisition of energy over a number of free paths. Some calculations and considerations are adduced to support this argument. It is pointed out that for this energy acquisition, ~~xxxxxx~~

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L 17781-63

ACCESSION NR: AP3005851

mechanisms to be realized there must be present in the conduction band of the semiconductor crystal a certain number of free electrons even before illumination of the crystal. That this is the case in electroluminescent crystals is indicated by the experimentally established fact (M.V.Fok, Uspekhi fiz.nauk, 72, 467, 1960) that the appearance of electroluminescence is favored by preliminary illumination or electric pulsing of the crystal. Orig.art.has: 11 formulas.

ASSOCIATION: none

SUBMITTED: 02Jan63

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH

NO REF SOV: 008

OTHER: 006

Card 2/2



KOVTONYUK, N.F.

On the theory of electroluminescence. Opt. i spekt. 15 no.2:262-265  
Ag '63. (MIRA 17:1)

KOVTONYUK, N.F.

Frequency dependence of the electroluminescence of  $ZnS:Cu$ .  
Opt. i spektr. 15 no.5:716 N '63. (MIRA 16:12)

Card 1/2

L145012-55

ACCESSION NR: AP5007058

proportioned, the lifetime  $\tau = \frac{1}{f}$  is measured automatically. The minimum measurable lifetime is claimed to be  $0.3 \times 10^{-6}$  sec. Orig. art. has: 3 figures

and 1 formula,

ASSOCIATION: Moskovskiy Institut Khimicheskogo mashinostroyeniya  
(Moscow Institute of Chemical Machine Building)

SUBMITTED: 03 Jan 64

ENCL: 00

SUB CODE: EG

NO REF SOV: 003

OTHER: 000

Card 2/2

L 00680-66 EWA(h)/EAT(1)/T IJP(c) AT

ACCESSION NR: AP5012573

UR/0181/65/007/005/1548/1549

AUTHOR: Kovtonyuk, N. F. 21.44.65

TITLE: Gradient-recombination photo emf in semiconductors

SOURCE: Fizika tverdogo tela, v. 7, no. 5, 1965, 1548-1549

TOPIC TAGS: photo emf, surface property, semiconductor property, electron recombination, electron diffusion

ABSTRACT: The author investigated the photo emf of germanium samples with uniform electric conductivity in which a gradient of the rate of surface recombination was produced under either uniform or non-uniform illumination. Unlike the photo emf due to a gradient in the rate of volume recombination, the photo emf investigated in this study can be readily separated if only part of the sample surface is polished and the rest left untreated. The difference in the gradient between the two parts of the surface produces a diffusion flow of excess carriers, which gives rise to an emf that can be readily observed during simultaneous measurements of the volume photo emf. A typical plot of the photo emf against the position of the applied light spot is shown in Fig. 1 of the Enclosure. The sensitivity of the method can be increased by polishing different areas of the sample, but it is pointed out that it is very difficult to observe the gradient-recombination emf if the

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L 00680-66

ACCESSION NR: AP5012573

electric conductivity of the sample is highly inhomogeneous. Orig. art. has: 2 figures and 3 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moscow (Physics Institute, AN SSSR) 44, 05

SUBMITTED: 11 Jun 64

ENCL: 01

SUB CODE: SS, 00

NR REF SOV: 002

OTHER: 000

Card 2/3

L 00680-66

ACCESSION NR: AP5012573

ENCLOSURE: 01

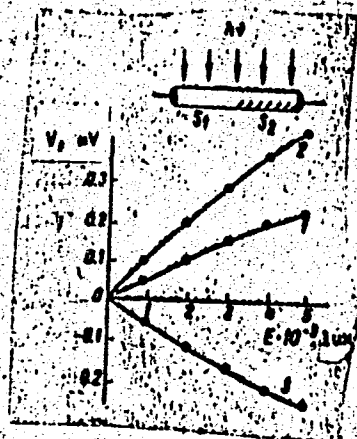


Fig. 1. Photo emf vs. illumination for unequal rates of surface recombination on opposite ends of the sample.

Cord 3/8

L 08127-67 EWT(1) IJP(c) AT

ACC NR: AP6033835

SOURCE CODE: UR/0139/66/000/005/0028/0032

AUTHOR: Kovtonyuk, N. F.; Fedonin, V. F.

ORG: Moscow Technological Institute of the Meat and Milk Industry (Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti)

TITLE: On the theory of the photo emf in semiconductors with sawtooth surfaces

SOURCE: IVUZ. Fizika, no. 5, 1966, 28-32

TOPIC TAGS: photo emf, photoelectric effect, semiconducting film

ABSTRACT: The possibility of utilizing the Dember effect to produce voltages of up to tens and hundreds of volts from small semiconductor films is theoretically investigated. In order to obtain a photodiffusion gradient of excess carriers, the authors assume that a semiconductor has been deposited on a substrate in such a way that it forms a sawtooth surface. It is further assumed that the depth of light penetration is equal to the linear dimensions of the elements of the "saw," and that the velocities of surface and volume recombination have certain determined values. The calculations show that under such conditions, and at  $T = 300K$ , the electromotive force of each element may have the value of  $kT/q = 0.025$  v. Due to the connection in series of all elements, a very high voltage can be obtained at the two ends of the sample. The authors state that a similar mechanism is responsible for the larger-than-gap voltages which can be observed in certain materials. Orig. art. has: 15 formulas and 1 figure.

SUB CODE: 20/ SUBM DATE: 26Jan65/ ORIG REF: 003/ ATD PRESS: 5102

Card 1/1 net



ACC NR: AP7003532

SOURCE CODE: UR/0386/67/005/001/0009/0012

AUTHOR: Guro, G. M.; Ivanchik, I. I.; Kovtonyuk, N. F.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences, SSSR (Fizicheskii institut Akademii nauk SSSR)

TITLE: Semiconducting properties of ferroelectrics

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 5, no. 1, 1967, 9-12

TOPIC TAGS: barium titanate, ferroelectric material, pn junction, forbidden band, electric polarization, light emission

ABSTRACT: Using the known fact that a ferroelectric crystal such as  $\text{BaTiO}_3$  is similar to a p-n junction in which the regions of high free-carrier density are separated by a broad dielectric gap, the authors estimate the free-carrier densities in the n and p regions, and the free-carrier and electric-field distributions over the thickness of a  $\text{BaTiO}_3$  plate. The estimates are made separately for an ideally pure crystal and for a real crystal with impurities. Analysis based on the band structure and on calculations of the induced potential difference lead to the following conclusions. 1. A  $\text{BaTiO}_3$  crystal connected in an electric circuit will behave like a p-n junction with symmetric current-voltage characteristic. The symmetry of the characteristic is a result of repolarization, which causes the current to flow in one direction relative to the p-n junction. 2. During repolarization, nuclei of the opposite phase

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ACC NR: AP7003532

grow through the crystal. At the instant when opposite ends of nuclei meet, recombination takes place and is accompanied by emission of light. The frequency of such emission can be of the order of the width of the forbidden band, corresponding to violet light in the case of  $\text{BaTiO}_3$ . The emission should take place over the entire volume of the crystal and is flash-like. Work aimed at observing this emission is now under way. 3. Thin layers with anomalously high free-carrier density should exist near the surfaces of crystals not equipped with electrodes. Thus, the electric conductivity along the surface should be much higher than in the direction perpendicular to the surface. The authors thank B. M. Vul, V. A. Rassushin, and N. A. Penin for a discussion of the results. Orig. art. has: 3 figures and 4 formulas.

SUB CODE: 20/ SUBM DATE: 29Sep66/ ORIG REF: 002/ OTH REF: 004

Card 2/2

KOVTONYUK, N.F.

Gradient-recombination photo-e.m.f. in semiconductors. Fiz. tver.  
tela 7 no.5:1548-1549 My '65. (MIRA 18:5)

1. Fizicheskii institut imeni Lebedeva AN SSSR, Moskva.

KOVTONYUK, V.I., gornyy inzh.

Use of column-mounted electric drills with flushing for drilling  
boreholes in hard rocks. Ugol' Ukr. 4 no.12:31-32 D '60.  
(MIRA 13:12)

(Rock drills)

VEDYUKOV, Ye.A., inzh.; DONSKOY, B.V., inzh.; KOVTOMYUK, Ye.P., inzh.

Removal of iron from condensate. Energetik 8 no.1:15-16

Ja '60.

(MIRA 13:5)

(Filters and filtration) (Iron oxides)

(Feed-water purification)

KOVTON, A.

375 Budni odnogo zavoda. (aykhango gidroliznyy zavod). arkhangel'sk.  
kn. 120., 1954.88 s. siu. 20 sm. 3000 ekz. ly. 40k.-(54.54316) p  
661.71. 09 (0:8)

SO: Knizhaya, Letopis, Vol. 1, 1955

PLATONOV, P., kand.tekhn.nauk; KOVTUN, A., inzh.

Pressure of grain on the walls of elevator silos. Muk.-elev.prom.  
25 no.12:22-24 D '59. (MIRA 13:4)

1. Odesskiy tekhnologicheskii institut im. I.V.Stalina.  
(Grain elevators)

ALLIK, A. M.; KOVTUN, A. A.; Min. Engs.

Mining Engineering

Applying the analytical method in mining. (Continuation). Gor. zhur. no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.



KOVTUN, A. A.: Master Phys-Math Sci (diss) -- "Nonstationary processes in the propagation of impulse signals in a circular waveguide". Leningrad, 1958.

10 pp (Leningrad Order of Lenin State U im A. A. Zhdanov), 150 copies (KL, No 7, 1959, 121)

AUTHOR: Kovtun, A.A.

109-3-5-9/17

TITLE: Transient Processes in Waveguides (Nestatsionarnyye protsessy v volnovode)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol III, Nr 5, pp 660 - 674 (USSR)

ABSTRACT: A cylindrical waveguide system (see Fig.1) is considered. The system is divided into a region I ( $r < R$  where  $R$  is the radius of the waveguide) and region II for  $r > R$ . The regions I and II have permittivities  $\epsilon_1$  and  $\epsilon_2$ , permeabilities  $\mu_1$  and  $\mu_2$  and conductivities  $\sigma_1$  and  $\sigma_2$ , respectively. A cylindrical co-ordinate system  $z, r, \varphi$  is assumed and it is supposed that a current source, described by Eq.(1) is situated at a point  $z = 0, \varphi = 0$  and  $r = R_1 < R$ ; the function  $\delta(x)$  is the Dirac symbol and the source is switched on at a time  $t = 0$ . The time function of the source is described by Eq.(2). The field in the region I can be written as:

$$\vec{E}_I = \vec{E}_0 + \vec{E}_1; \quad \vec{H}_I = \vec{H}_0 + \vec{H}_1$$

and in the region II, as:  
Card 1/5

Transient Processes in Waveguides

109-3-5-9/17

$$\vec{E}_{II} = \vec{E}_2; \quad \vec{H}_{II} = \vec{H}_2$$

where  $\vec{E}_0$  and  $\vec{H}_0$  is the field which would be produced by the current source in a free space, having  $\epsilon_0 = \epsilon_1$ ,  $\mu_0 = \mu_1$  and  $\sigma_0 = \sigma_1$ ;  $\vec{E}_1$  and  $\vec{H}_1$  is the field reflected from the boundary of the two media. The fields can be represented as a sum of transverse-electric components  $\vec{E}_{hv}$  and  $\vec{H}_{hv}$  and of transverse magnetic components  $\vec{E}_{ev}$  and  $\vec{H}_{ev}$ , where  $v = 0, 1, 2$ . The problem can be solved by determining a function  $\Psi_{\delta v}$  (where  $\delta = e$  or  $h$ ). The function can be found from Eq.(3), which should satisfy the boundary conditions expressed by Eq.(4). The solution for the function is in the form:

$$\Psi_{\delta v} = \frac{1}{4\pi^2} \sum_{m=-\infty}^{\infty} e^{im\varphi} \int_{-\infty}^{\infty} e^{ikz} \Psi_{m\delta v}(rkt) dk \quad (6)$$

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Transient Processes in Waveguides

109-3-5-9/17

where the functions  $\Psi$  are defined by two equations on p.662, where  $H$  and  $J$  are cylindrical functions. If the driving source is such that  $\Psi_{ho} = 0$ , the function  $\Psi_{eo}$  can be expressed as shown on p.662; if it is assumed that  $R_1 = 0$  and  $\sigma_1 = 0$ , the coefficients  $A$  of the functions  $\Psi$  are expressed by Eq.(7). When  $\sigma_2 = \infty$ , the function  $\Psi$  in the region I is expressed by Eq.(8), where  $F$ ,  $\alpha$  and  $f(y)$  are defined by Eqs.(9) and (10). The symbols  $\rho$ ,  $t$  and  $z$  are the normalised radius, time and length co-ordinates. Solution of Eq.(8) can be expressed as Eq.(13); under certain conditions, Eq.(13) can be simplified and given in the form of Eq.(15). Eq.(13) can also be written as Eq.(16) where the integrals  $I_n$  are defined by Eqs.(17) or (18). For  $t \rightarrow \infty$ , the integrals  $I_n$  are in the form of Eqs.(19). It is also shown that the functions  $I_n$  can be expressed in terms of Lommel functions, as shown by Eqs.(21). Provided the conditions defined by Eqs.(22) and (23) are fulfilled,  $I_n$  can be given by Eqs.(24);

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Transient Processes in Waveguides

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for the time instants defined by Eqs.(25), the functions  $I_n$  can be expressed by Eq.(26), where  $p_0$  and  $w$  are expressed by Eqs.(27). When  $\arg p_0 = 3\pi/4$ , the functions  $I_n$  can be expressed by Eqs.(28). From Eqs.(6), it follows that  $E_z$  component of the electro-magnetic field can be expressed by Eq.(29); if  $E_z$  is expressed as a sum of two components,  $E_z$  and  $E_z^1$  (see Eq.(30)) and if the system satisfies the conditions expressed by Eq.(31), the  $E_z^1$  component is given by Eqs.(33) and (34). Alternatively, the  $E_z^1$  component can be expressed by Eq.(35), where  $F_1$  and  $F_2$  are defined by Eqs.(36) and (37). If the time function of the source is given by Eq.(38), the  $\varphi$  component of the electro-magnetic field is expressed by the first equation on p.668. The  $E_z^0$  component of the electric field (see Eq.(30)) is written as Eq.(41). From the above, the envelopes of  $TM_{0n}$  waves can be written as Eqs.(43) and the time instants when the amplitudes of these waves have

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Transient Processes in Waveguides

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either maxima or minima are defined by Eq.(44). Figs. 3 and 4 show the envelopes (dotted lines) of the  $E_z$  components of  $TM_{On}$  waves for  $\zeta = 100$  and  $\zeta = 300$ . Fig.5 shows the form of the signal for  $\zeta = 10$ , as calculated from Eqs.(28). On the basis of Eq.(6), the general solution for the function  $\Pi$  can be written as Eq.(46) which, in the case of a waveguide having walls of finite conductivity, gives the electric field component  $E_z$  in the form of Eq.(47). The function  $F_n$  in Eq.(47) is defined by Eq.(48). The results presented in this paper form a part of the author's dissertation entitled "Transient Processes in a Waveguide" which was carried out under the supervision of G.I. Makarov. There are 6 figures and 15 references, 8 of which are Soviet, 5 English and 2 Polish.

SUBMITTED: January 31, 1957

AVAILABLE: Library of Congress

Card 5/5

1. Waveguide-Transients-Processes

KOVTUN, A.A.; NOBOSELOVA, S.M.

Establishing an alternating electromagnetic field over a stratified homogeneous medium. Uch. zap. LGU no.286:174-184 '60.

(Electromagnetic prospecting)

(MIRA 14:3)

KOVTUN, A.A.

Conference on electromagnetic methods used in studying the earth.  
Izv. V SSSR. Ser. geofiz. no.10:1548-1550 O '61. (MIRA 14:9)  
(Electric prospecting--Congresses) (Magnetic Prospecting--Congresses)



30282

S/049/61/000/011/004/005  
D239/D303

3,9410

AUTHOR: Kovtun, A.A.

TITLE: Magnetotelluric investigations of structures consisting of one inhomogeneous layer

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 11, 1961, 1663-1667

TEXT: The case of a single layer with two contiguous media of differing electrical properties, separated by a linear boundary, is sufficiently common in geophysical prospecting (faults, changes in sedimentary cover, etc.) to make a mathematical treatment of this specially simple case useful. The basic theory for a homogeneous layer is first given, showing how the conditions can be described by two impedances  $Z_x$   $Z_y$  relating to two mutually perpendicular axes and defined by  $Z_y = -E_y/H_x$ ,  $Z_x = E_x/H_y$ . In the inhomogeneous case considered, the method depends on having a sufficiently long record of all four components to be able to spot an instant when

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30282

Magnetotelluric investigations ...

S/049/61/000/011/004/005  
D239/D303

the vectors E and H are perpendicular. A plane wave then travels in a direction parallel or perpendicular to the direction of the boundary, which is thereby determined. Certain specially simple mathematical relationships then hold which enable  $Z_x$  and  $Z_y$  to be determined as well. The method was tried out on some short period observations taken in 1958 on an expedition under the auspices of the VNIIGeofiz. and the LGU. In a two hour record, ten instances of a plane wave of single period (about 30 sec) were analyzed. The results were consistent with three possible directions for the axis of inhomogeneity, but two of these could be ruled out by other knowledge. The accuracy quoted is  $\pm 2^\circ$  and  $\pm 8\%$  for Z. There are 2 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: L. Cagniard, Basic theory of the magnetotelluric method. Geophys., 18, no. 3, 1953. 4

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University, im. A. A. Zhdanov)

Card 2/3

30282

Magnetotelluric investigations...

S/049/61/000/011/004/005  
D239/D303

SUBMITTED: May 25, 1961

+

Card 3/3

KOVTUN, A.A.; RASPOPOV, O.M.

Equipment for magnetotelluric sounding. Geofiz.prib. no.8:89-97  
'61. (MIRA 15:7)  
(Magnetic prospecting)

KOVTUN, A.A.

Construction of curves of magnetotelluric sounding from recordings  
of brief periodic variations in the earth's natural electromagnetic  
field. Uch.zap.IGU no.303:56-66 '62. (MIRA 15:11)  
(Electromagnetic prospecting)

ACCESSION NR: AP4043137

S/0049/64/000/007/0999/1006

AUTHOR: Yanovskiy, B. M., (Doctor of physico-mathematical sciences), Bryunelli, B.Ye.,  
Kovtun, A.A., Kuznetsov, N.S., Raspopov, O.M., Chicherina, N.D.

TITLE: Magnetotelluric sounding in the Central Russian Depression

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 7, 1964, 999-1006

TOPIC TAGS: magnetotelluric sounding, geology, geophysics, terrestrial conductivity,  
magnetotelluric profiling, electrical profile

ABSTRACT: Information published earlier on magnetotelluric sounding work in the Central Russian Depression is reviewed, and new work done in the central part of the region is described. The work was undertaken to determine the value of the total longitudinal conductivity and the depth and thickness of the poorly conducting basement. Information on the relief of the bottom of the depression is contradictory; data obtained by drilling, logging and sounding are compared. It is noted that the electrical profile of the studied region can be represented schematically as a three-layer structure with an upper layer of

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ACCESSION NR: AP4043137

relatively high resistivity, a layer of low resistivity and a base of high resistivity. It was with these initial data and concepts that an expedition from the Leningradskiy gosudarstvennyy universitet (Leningrad State University) began magnetotelluric sounding work in the summer of 1962. Sounding was done at four points along a profile running across the assumed strike of the axis of the depression. Several days were spent at each point. The variations of the  $H_x$ ,  $H_y$ ,  $E_x$  and  $E_y$  components of the electromagnetic field were recorded. Variations with different periods were recorded continuously for the period from 14 August through 4 September, 1962. A spectrum of variations from 5-10 to 2000-3000 seconds was obtained at each point. The vectors of variations in E and H in most cases were not perpendicular to one another. For periods of less than 400 seconds they were nonperpendicular by only 2-8°, but for greater periods the deviation was 10-15°. The methods and formulas used in processing the data are presented. It was found that all the curves obtained in approximately the same geological region differ in behavior in the region of small periods, indicating considerable variation in the sedimentary complex of the studied region. In addition, in the region of large periods on all the sounding curves, there was a maximum indicating an increase in conductivity at great depths. A formula for estimating the thickness of poorly conducting layers is given. The new magnetotelluric sounding data are

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ACCESSION NR: AP4043137

compared with drilling data. It was found that the depth of the upper surface of the well-conducting layer varies from point to point in the range 200-400 km; it is noted that variations of this scale also have been reported elsewhere in the literature. Orig. art. has: 7 formulas, 3 figures and 3 tables.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A. A. Zhdanova (Leningrad State University)

SUBMITTED: 10Jul63

ENCL: 00

SUB CODE: ES

NO REF SOV: 012

OTHER: 002

Card 3/3



KOVTUN, A.A.

Behavior of an electromagnetic field over an ideally conducting  
wedge in the low frequency region. Uch. zap. LGU no.324:17-26  
'64. (MIRA 18:4)

BRYUNET, I. B.Ye.; KOVTUN, A.A.; KUZNETSOV, N.S.; RASPOPOV, O.M.; CHICHERINA,  
N.D.; YANOVSKIY, B.M.

Studying the structure of the Central Russian Depression by the  
magnetotelluric method. Uch. zap. LGU no.324:3-16 '64  
(MIRA 18:4)

KOVTUN, A. D.

"The Application of Photography for the Determination of the Outlines of the Hulls of Ships and Screw Propellers." Cand Tech Sci, Leningrad Shipbuilding Inst, Leningrad, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

KOVTUN, A.D., kand.tekhn.nauk

Ways of improving ship piping installations. Sudostroenie 29  
no.11:48-52 N '63. (MIRA 16:12)

~~KOVCHIN~~ Aleksandr Danilovich; DORMIDONTOV, F.K., redaktor; DLUGOKANSKAYA, Ye.A.  
tekhnicheskii redaktor.

[Photographic measurement of ships for the establishment of theoretic  
hull and propeller contour] Primenenie fotografii dlia s"emki s natury  
teoreticheskikh obvodov korpusov sudov i grebnykh vintov. Leningrad,  
Gos.soiuznoe izd-vo sudostroït.promyshl. 1956. 117 p.

(MLRA 10:4)

(Photography) (Shipbuilding)

KOVTUN, A.D.

Automatic tow hooks, Biul. tekhn.-ekon. inform. no.3:75-76 '58.  
(Towing) (MIRA 11:6)

KOVTUN, A.D., kand.tekhn.nauk

Efficiency of ship hull structures. Sudostroenie 27 no.5:49-50  
My # 61. (MIRA 14:6)  
(Hulls (Naval architecture))

KOVTUN, A.D., kand.tekhn.nauk

Determining the magnitude of mandrel loading in machine pipe  
bending. Sudostroenie 28 no.6:59-61 Je '62. (MIRA 15:6)  
(Pipe bending) (Marine pipe fitting)



KOVTUN, A.D., kand. tekhn. nauk

Amount of spring and change in pipe curvature during cold  
bending. Sudostroenie 28 no.1:56-58 Ja '62.

(MIRA 16:7)

(Pipe bending)

KOVTUN, A.D., kand.tekhn.nauk

Determining wall deformation and bending moments in the cold bending  
of pipe. Sudostroenie 29 no.4:45-47 Ap '63. (MIRA 16:4)  
(Marine pipe fitting)

BERMAN, Sh.M.; YAN'SHINA, M.P.; SHAPOVALOV, V.S.; Primalni uchastiye:  
KOVAL'CHUK, Ye.I.; PLOSHENKO, Ye.A.; POPOV, G.I.; SHKAPIN, V.G.;  
ANTONOV, G.I.; KOVTUN, A.M.

Service conditions and processes of the wear of basic refractories  
in the bulkheads of open-hearth furnace front walls. Sbor.nauch.  
trud. UNIIO no.5:181-201 '61. (MIRA 15:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov  
(for Antonov, Kovtun).

(Open-hearth furnaces--Design and construction)

(Firebrick--Testing)

KOVTUN, A.P.; PLATONOV, P.N.

Measurement of the pressure of a loose material from the initial stage of its displacement. Izv.vys.ucheb.zav.;pishch.tekh. 1:152  
155 '61. (MIRA 14:3)

1. Odesskiy tekhnologicheskii institut imeni I.V. Stalina, Kafedra  
pod'yemno-transportnykh mashin.  
(Granular materials)

ANATOL'YEV, A.V.; KOVTUN, A.P.; PLATONOV, P.N.

Mechanics of stress transmission in a loose medium. Izv. vys. ucheb. zav.; pishch. tekhn. no.4:128-133 '61. (MIRA 14:8)

1. Odesskiy tekhnologicheskiy institut imeni I.V. Stalina, laboratoriya mekhaniki sypuchikh sred, kafedra mekhanizatsii i avtomatizatsii proizvodstva.

(Strains and stresses)

KOVTUN, A.P.

Simple method of determining the volumetric weight of soils.  
Pochvovedenie no.3:109-112 Mr '62. (MIRA 15:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya.  
(Soils--Analysis)

KOVTUN, A.P.

Stressed state of a loose medium enclosed in vertical walls.  
Trudy Od. tekhn. inst. 14:65-74 '62. (MIRA 16:12)

BENDERSKIY, S.N., kand.tekhn. nauk; BURSIAI, V.R., prof., kand. tekhn. nauk; VASIL'YEV, P.N., inzh.; DORFMAN, E.Ye., inzh.; ZHURAVLEV, V.F., kand. tekhn. nauk; KESTEL'MAN, V.N., inzh.; KRUGLOV, A.N., dots., kand. tekhn. nauk; KUKIBNYI, A.A., dots., kand.tekhn. nauk; LEVACHEV, N.A., dots., kand. tekhn. nauk; LEYKIN, A.Ya., inzh.; NAREMSKIY, N.K., dots., kand. tekhn. nauk; PLATONOV, P.N., prof., doktor tekhn. nauk; SOKOLOV, A.Ya., prof., doktor tekhn. nauk; KUTSENKO, K.I., kand. tekhn. nauk, dots., retsenzent; VEREMEYENKO, Ye.I., inzh., retsenzent; KOVTUN, A.P., inzh., retsenzent; SEMENYUK, A.I., retsenzent; KASHCHEYEV, I.P., inzh., retsenzent; PAL'TSEV, V.S., kand. tekhn. nauk, retsenzent; KHMEL'NITSKAYA, A.Z., red.

[Conveying and reloading machinery for the overall mechanization of the food industries] Transportiruiushchie i peregruzochnye mashiny dlia kompleksnoi mekhanizatsii pishchevykh proizvodstv. Moskva, Pishchevaia promyshlennost', 1964.

759 p.

(MIRA 18:3)

(Continued on next card)



BENDERSKIY, S.N.— (continued). Card 2.

1. Odesskiy tekhnologicheskii institut imeni M.V.Lomonosova (for Kutsenko, Naremskiy, Veremeyenko, Kovtun).
2. Starshiy ekspert Upravleniya po avtomatizatsii i oborudovaniyu dlya pishchevoy promyshlennosti Gosudarstvennogo komiteta po mashinostroyeniyu pri Gosplane SSSR (for Semenyuk).
3. Glavnyy mekhanik Gosudarstvennogo instituta po proyektirovaniyu predpriyatiy mukomol'nokrupyanoy i kombikormovoy promyshlennosti i elevatorno-skladskogo khozyaystva (for Kashcheyev).
4. Zaveduyushchiy laboratoriyey Vsesoyuznogo nauchno-issledovatel'skogo instituta zerna i produktov ego pererabotki (for Pal'tsev).

BOSYY, M.K.; KOVTUN, A.P., student; KOLIADENKO, G.I., student;  
SUKHANOVSKAYA, O.N., studentka

Studies on the duration of inhibitory aferpotentials during  
extinction of conditioned reflexes. Vopr.fiziol. no.9:19-28  
'54. (MIRA 14:1)

1. Cherkasskiy pedagogicheskiy institut.  
(REFLEX, CONDITION,  
inhib. afterpotential, duration  
during extinction)

BOSIY, M.K. ; KOVTUN, A.P.

Studying aftereffect inhibition following the prolonged effect of a  
differentiates stimulus. Fiziol.zhur. [Ukr.] 1 no.2:55-61 Mr-Apr '55.  
(INHIBITION) (MLRA 9:9)

BOSIY, M.K. [Bosyi, M.K.]; DRAGUN, G.D. [Drahun, H.D.]; KOVTUN, A.P.;  
KOLYADENKO, G.I. [Koliadenko, H.I.]; DAVIDENKO, I.M. [Davydenko, I.M.]  
MAKARUK, G.I. [Makaruk, H.I.]

Studying the consecutive inhibition of a single and summed effect of  
differentiated inhibition in dogs by the conditioned reflex method.  
Report No.4. Nauk.zap. ChDPI 8:27-39 '56. (MIRA 11:2)  
(INHIBITION) (CONDITIONED RESPONSE)

USSR/Human and Animal Physiology (Normal and Pathological). T-12  
Nervous System. Higher Nervous Activity. Behavior.

Abs Jour : Ref Zhur - Biol., No 11, 1958, 51293

Author : Kovtun, A.P.

Inst : -

Title : The Formation of a Temporary Connection Between the Trace  
of a Single Indifferent Stimulus and a Present Stimulus  
which Follows.

Orig Pub : Fiziol. zh., 1957, 3, No 2, 20-29

Abstract : For two dogs a present sound stimulus (S; with an electric  
hammer) was repeatedly combined with a visual trace S  
(with a lamp). The conditioned reflex connection between  
the two S was established. It manifested itself in a motor  
reaction (turning the head in the direction of S). Trace  
association was stabilized by variations of place and in-  
tensity of S. After formation of an electrodefensive reac-  
tion to one of the two S (light), the second associated

Card 1/2

USSR/Human and Animal Physiology (Normal and Pathological). T-12  
Nervous System. Higher Nervous Activity. Behavior.

Abs Jour : Ref Zhur - Biol., No 11, 1958, 51293

S became inhibitive, the more so the more stable the defensive reaction became. These investigated phenomena of "combined inhibition" or "negative association" are based upon the principle of negative induction. -- K.S. Ratner.

Card 2/2

- 1 Q -

KOVTUN, A. P. Cand Biol Sci -- (diss) "Interrelation of processes of stimulation and inhibition during conditioned trace reflexes." Kiev, 1958  
16 pp (Acad Sci URSSR. Department of Biol Sci), 150 copies (KL, 52-58, 100)

KOVTUN, A.P.

M.A. Rozhans'kyi [diysniy chlen AMN SRSR, zasluzhenniy diyach nauki  
RRFSR, prof.] Fiziol. zhur. [Ukr.] 4 no.2:279-281 Mr-Ap '58.  
(MIRA 11:5)

1. Institut fiziologii im. O.O. Bogomol'tsya AN URSR.  
- (ROZHANS'KYI, MYKOLA APOLLINAROVYCH. 1884-1957)



KOVTUN, A.P.

Interrelations between processes of excitation and inhibition in the direct formation of conditioned trace food reflexes. Fiziol. zhur. [Ukr.] 4 no.3:287-296 My-Je '58 (MDRA 11:7)

1. Institut fiziologii im. O.O. Bogomol'tsya AN URSR, laboratoriya vishchoi nervovoi diyal'nosti.  
(CONDITIONED RESPONSE)

GMRYA-NOVI, V.A.; KOVTUN, A.P.; LUK'YANOVA, O.N.; VASECHKO, T.V.

Induced potentials in the auditory area of the cerebral cortex  
in trace conditioned reflexes. Zhur. vys. nerv. deiat. 12 no.4:  
670-678 J1-Ag '62. (MIRA 17:11)

1. Bogomoletz Institute of Physiology, Ukrainian Academy of  
Sciences, Kiev.

ACCESSION NR: AP4011413

S/0238/64/010/001/0047/0054

AUTHOR: Adamenko, M. P.; Kovtun, A. P.

TITLE: Conditioned reflex activity of animals revived after lethal electric trauma

SOURCE: Fiziologichnyy zhurnal, v. 10, no. 1, 1964, 47-54

TOPIC TAGS: clinical death, revival, electric trauma, conditioned reflex, autojector pump, living donor, method of revival, motor electric defensive conditioned reflex, insulated chamber

ABSTRACT: The condition of the higher nervous activity of 5 dogs which underwent clinical death from electric trauma lasting 11 to 17.5 minutes (considered from their last breath) and were revived with the aid of an autojector pump developed by S. S. Bryukhonenko and a living blood donor was investigated. The experiments were conducted in a sound-insulated chamber on the conditioned reflexes according to the motor electric defensive method of V. P. Protopopov. Positive and inhibiting conditioned reflexes were developed in the animals from sound and visual analyzers. The formation of positive motor defensive conditioned reflexes in these animals by sound irritation did not differ at all from the reflexes of intact animals; they were narrowly generalized. A steady differentiated inhibition

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ACCESSION NR: AP4011413

was sufficiently easily developed by sound irritation. Despite the same rate of appearance of the positive reflex from the visual analyzer, a considerably greater amount of reinforcement with unconditioned irritation was required for its fixing, and it remained generalized for a long time. Differentiated inhibition by light irritation was developed in these animals also; however, it was formed with difficulty and was unstable. The data obtained attest in favor of the method of revival (N. P. Adamenko's) with the use of a living blood donor in contrast to animals revived according to the method of artificial blood circulation of S. S. Bryukhonenko after lethal blood loss and clinical death lasting 10-15 minutes, in which a constant wide generalization of the positive conditioned reflexes, pathological obstruction of the sites of excitation, and disturbance of the inhibiting process are observed.

ASSOCIATION: Instytut fiziologiyi im. O. O. Bogomol'tsya Akademiyi nauk URSR, Kiev  
(Institute of Physiology, Academy of Sciences, URSR)

SUBMITTED: 30Sep63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: LS

NO REF SOV: 012

OTHER: 000

Card 2/2

KOVTUN, A.S.

Fodder yeast plant has been put into operation. Gidroliz. i lesokhim.  
prom. 12 no.7:28 '59 (MIRA 13:3)  
(Onega--Yeast)

DMITRIYEVA, Ye.A.; KOVTUN, A.S.

Role of fracturing in Lower Paleozoic carbonate rocks of the Anabar  
arch in prospecting for oil reservoirs. Trudy VNIGRI no.193:77-95  
162. (MIRA 15:12)  
(Anabar shield--Rocks, Carbonate)

KOVTUN, A.S.

Slime conduit made of plywood pipes. Gidroliz.i lesokhin.prom.  
15 no.8:30 '62. (MIRA 15:12)  
(Onega---Hydrolysis) (Pipe, Wooden)

KOVTUN, A.S.

Reservoir rock properties of the Sinian and Lower Paleozoic  
sediments of the southern wing of the Anabar anticline.

Trudy VNIGRI no.228:18-26 '64

(MIRA 17:8)



SHAMPANOV, M.D.; KOVTUN, A.S.

Certain results for 1952 in controlling helminthiasis, malaria and diseases transmitted by mosquitoes in the R.S.F.S.R., and problems to be solved in the near future. Med.paraz.i paraz.bol. no.4:299-305 J1-Ag '53. (MLRA 6:9)  
(Worms, Intestinal and parasitic) (Malarial fever)  
(Insects as carriers of contagion)

KOVTUN, A.S.

Achievements in the control of malaria and other parasitic diseases in the R.S.F.S.R. during 1953 and tasks for 1954. Med. paraz. i paraz. bol. no.3:200-202 J1-S '54. (MLRA 8:2)

1. Nachal'nik otdela parazitnykh zabolevaniy Ministerstva zdравo-okhraneniya RSFSR.

(MALARIA, prevention and control,  
Russia)

(PARASITIC DISEASES, prevention and control,  
Russia)

KOVTUN, A.S. (Moskva)

Results of control of malaria, helminthiases and other parasitic diseases in the RSFSR during 1954. Med.paraz. 1 paraz. bol.24 no.3:201-204 J1-S '55. (MLRA 8:12)

(MALARIA, prevention and control in Russia)

(HELMINTH INFECTIONS, prevention and control in Russia)

(PARASITIC DISEASES, prevention and control in Russia)

KOVTUN, A.S.

Results of combatting malaria and other parasitic diseases in the  
R.S.F.S.R. during the period 1951-55 and tasks for 1956-60. Med.  
paraz. i paraz.bol. 25 no.3:202-206 J1-S '56. (MORA 9:10)  
(MALARIA, prevention and control,  
in Russia (Rus))  
(PARASITIC DISEASES, prevention and control,  
in Russia (Rus))

1. KUCHUKOV, A. F., KOVTUN, A. T.
2. USSR (600)
4. Poultry - Feeding and Feeding Stuffs
7. Leading work practices in machine fattening of chickens. Pittsevodstvo no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

KOVTUN, D.G.

METLERKAMP, Ye.A., dotsent, kandidat tekhnicheskikh nauk; ~~KOVTUN, D.G.~~  
dotsent fiziko-matematicheskikh nauk; ANGELEYKO, V.I., dotsent,  
kandidat tekhnicheskikh nauk.

Scheduling railroad-tie replacement. Trudy KHIIT no. 24:63-80 '54.  
(Railroads--Ties) (MIRA 8:1)

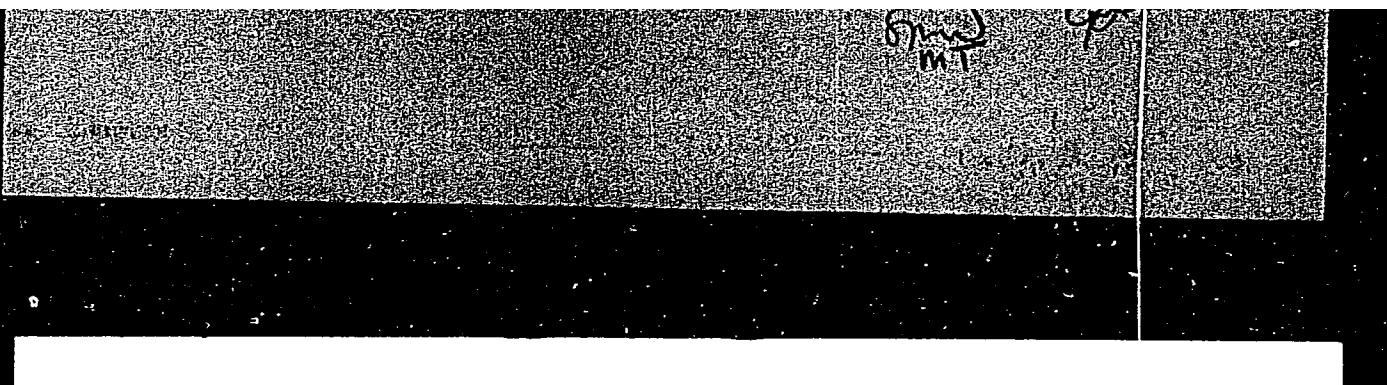
KOVTUN, D. G.

KOVTUN, D. G.

Certain Fourier-Poisson series in the theory of heat conductance.  
Ukr.mat.zhur. 7 no.3:273-290 '55. (MLRA 9:2)  
(Fourier's series) (Heat--Conduction)

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Translation from Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 14 (USSR)

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TITLE: On the Equation of Motion of a Wheel With an Unsprung Mass Along an Elastically Deforming Material Curve ( Ob uravneniyakh dvizheniya kolesa s nesovershennoy massoy po uprugoy deformiruyushchey material'noy krivoy)

PERIODICAL: Tr. Khar'kovsk. in-ta inzh. zh.-d transp., 1956, Nr 26, pp 190-196

ABSTRACT: The equations of motion of a rigid wheel with an unsprung mass along an elastically deforming material curve were obtained. In cases when the motion in the horizontal plane is stationary, the motion of the center of inertia of the wheel in the vertical plane is described by an equation of a quasi-harmonic type. The solutions of the equations are not given.

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1. Wheels--Motion 2. Mathematics

Card 1/1

KOVTUN, D.G., kand.fiz.-mat.nauk, dots.; ANGELEYKO, V.I., doktor tekhn.  
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Using the method of coinciding deviations for calculating railroad  
curve straightening. Trudy KHIIT no.28:5-72 '58. (MIRA 12:3)  
(Railroads--Curves and turnouts)

KOVTUN, D.G., kand.fiz.-mat.nauk.dots.

Distribution laws for compensating processes. Trudy KHIIT no.28:73-81  
'58. (MIRA 12:3)

(Distribution (Probability theory)) (Railroads--Ties)

DYUNIN, A.K.; KOVTUN, D.G.; ANGELEYKO, V.I.; YEVREYSKOV, V.Ye., prof.,  
otv.red.; DREMOVA, T.A., red.; MAZUROVA, A.F., tekhn.red.

[Theory of the planning and designing of railroad curves]  
Voprosy teorii proektirovaniia zheleznodorozhnykh krivyykh.  
Otv.red. V.E.Evreiskov. Novosibirsk, Izd-vo Sibirskogo otd-niia  
AN SSSR, 1960. 173 p. (MIRA 13:12)  
(Railroads--Curves and turnouts)